UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,375	03/19/2004	Jason Keith Redi	03-4054	7207

32127 7590 02/11/2008

VERIZON
PATENT MANAGEMENT GROUP
1515 N. COURTHOUSE ROAD, SUITE 500
ARLINGTON, VA 22201-2909

EXAMINER	
PHUNG, LUAT	
ART UNIT	**PAPER NUMBER**
2616	

NOTIFICATION DATE	DELIVERY MODE
02/11/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@VERIZON.COM

Office Action Summary	Application No.	Applicant(s)	
	10/804,375	REDI, JASON KEITH	
	Examiner	Art Unit	
	Luat Phung	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-15 and 17-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-15 and 17-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to: See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the communication filed on November 20, 2007. Claims 1, 4, 5, 9, 10, 15, 17, 18 and 22 have been amended. Claims 1, 2, 4-15, 17-20, 22 and 23 are pending. Claims 1, 2, 4-15 and 17-23 are rejected.

Response to Arguments

1. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The rejections and/or objections in this office action are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

2. Examiner thanks Applicant for identifying inconsistencies in the previous office action, and submitting the Remarks in view of their corrections.

3. On page 8, Applicant states that:

"The Examiner rejected claim 1 as being anticipated by Meier. Claim 1 has been amended to include the limitations of claim 3, which has been canceled. With regard to claim 3 as filed, the Examiner admits that Meier fails to anticipate "a plurality of node pairs," and "wherein each of the node pairs is connected by a hardwire connection." Office Action, p. 5. As such, Meier fails to disclose each and every limitation of claim 1 as amended herein. Accordingly, the rejection of claim 1 under 35 U.S.C. § 102(b) should be withdrawn and the claim allowed."

On page 10, Applicant states that:

"Claim 1 recites the plurality of nodes defining "a plurality of node pairs," and wherein the nodes in the node pair are "connected by and communicate through a hardwire connection." The prior art cited by the Examiner fails to disclose at least these elements of claim 1."

Examiner respectfully disagrees because:

The same prior-art reference reads on the newly-amended limitations of claim 1. As a recap (as stated in the rejection of claim 1), Meier discloses a multinode arrangement for establishing a communication network for transmitting information between a first object and a second object (data communication network per abstract; first and second objects per Fig. 6, elements 286, 288), comprising:

a plurality of nodes defining a plurality of node pairs; (Fig. 6, elements 286, 271; 263, 267; 273, 288)

wherein the plurality of nodes includes at least a first node (Fig. 6, element 267) and a second node (element 263) defining one of the plurality of node pairs, wherein the first node and the second node are connected by and communicate through a hardwire connection (element 265 connecting elements 267 and 263); and

wherein the plurality of nodes includes at least a third node (element 271) in another of the plurality of node pairs that communicates with at least the first node or the second node (element 263) through an RF communication link (zig-zag line between elements 263 and 271 per Fig. 6; col. 5, lines 5-15)

Specifically "a plurality of node pairs" is disclosed by Meier in Fig. 6, elements 286, 271; 263, 267; 273, 288, and "wherein the nodes in the node pair are connected by

and communicate through a hardwire connection" is disclosed in Fig. 6, element 265 connecting elements 267 and 263.

4. On page 9, Applicant states that:

"The examiner rejected claim 15 as being anticipated by Meier. Claim 15 has been amended to include the limitations of claim 16, which has been canceled. With regard to claim 16 as filed, the Examiner implicitly admits that Meier fails to anticipate '°a reestablishing means for reestablishing a communication link between at least two of the plurality of nodes when an original communication link between the two of the plurality of nodes is broken." Specifically, the Examiner does not mention claim 16 in the discussion of anticipation by Meier under § 102(b), but states that it is a "substantial duplicate[] ofclaim[] 12...," which was rejected under § 103(a). Office Action, pp. 11- 12. With regard to § 102(b) Meier fails to disclose each and every limitation of claim 15 as amended herein. Accordingly, the rejection of claim 15 under 35 U.S.C. § t02(b) should be withdrawn and the claim allowed."

Examiner respectfully disagrees because:

Applicant's argument with respect to claim 15 have been considered but are moot in view of the new ground(s) of rejection.

5. On page 11, Applicant states that:

"The Examiner fails to identify any reason to group the nodes into "a plurality of node pairs," and "wherein the first node and the second node are connected by and communicate through a hardwire connection," especially in the absence of another prior art reference showing a plurality of node pairs. Therefore, when making a rejection

based on a sole §103(a) reference, merely stating that the prior art "could be modified" does not meet the Examiner's burden to establish a prima facie case of obviousness. Accordingly, the rejection of claim 1, as amended, should be withdrawn and the claim allowed."

Examiner respectfully disagrees because:

Applicant's argument with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

6. On page 11, Applicant states that:

"Regarding claims 5-8, the Examiner admits that Meier and the other cited prior art fails to disclose each and every limitation of those claims. Instead, the Examiner has taken official notice of the elements of claims 5-8 not disclosed by Meier or the other cited prior art. Regarding claims 5-6, the Examiner states that it is "well known in the art [to] arrang[e] the nodes in an end-to-end fashion in a passage..." Office Action, p. 8. Regarding claims 7-8, the Examiner states that "the first and second objects can be flexibly placed either inside or outside the passage based on service requirements and resource availability." Office Action, pp. 9-10. To the extent the Examiner intends to take Official Notice of the limitations of claims 5-8, the Applicant requests that the Examiner provide documentary evidence to support the taking of Official Notice as is required by 37 CFR § 1.104(d)(2) and MPEP § 2144.03."

Examiner respectfully disagrees because:

As a recap (as stated in the rejection of claim 5), Meier discloses all of the subject matter as recited previously in this office action. Meier further discloses wherein:

each node of a node pair (Fig. 6, elements 267, 263) that is proximate a node of a different node pair includes an RF communication link to communicate with the node of the different node pair (Fig. 6, element 271; col. 5, lines 5-15).

Meier does not disclose wherein the node pairs are distributed in an end to end fashion. It is inherent that the distance between two points, i.e., end-to-end, is the shortest distance along any path. Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to arrange the nodes in an end-to-end fashion to achieve a simple and efficient communication between two objects.

The above fact can be found on http://en.wikipedia.org/wiki/Distance, or numerous websites teaching elementary math.

Applicant's argument with respect to claims 6-8 have been considered but are moot in view of the new ground(s) of rejection.

7. On page 12, Applicant states that:

"West fails to disclose more than one node pair. Therefore, West cannot disclose "each node of a node pair [being] proximate a node of a different node pair..."""

Examiner respectfully disagrees because:

Applicant's argument with respect to claim 9 have been considered but are moot in view of the new ground(s) of rejection.

8. On page 12, Applicant states that:

Notably, claim 15 recites "reestablishing means for reestablishing a communication link between at least two of the plurality of nodes when an original communication link between the two of the plurality of nodes is broken." The prior art cited by the Examiner fails to disclose at least this element of claim 15.

Examiner respectfully disagrees because:

Applicant's argument with respect to claim 15 have been considered but are moot in view of the new ground(s) of rejection.

9. On page 14, Applicant states that:

The prior art does not teach the following limitations of claim 19, which "recites "providing a plurality of node pairs," "distributing the plurality of node pairs," and "establishing a communication network by linking nodes of node pairs with nodes of other node pairs.""

Examiner respectfully disagrees because:

As a recap (as stated in the rejection of claim 19), Meier further discloses a method for providing a communication network between a first object and a second object (data communication network per abstract; first and second objects per Fig. 6, elements 286, 288), comprising:

providing a plurality of node pairs, wherein each of the node pairs comprises at least two nodes that are connected by and communicate through a hardwire connection; (Fig. 6, elements 286, 271 connected through element 287; 263, 267 through 265; 273, 288 through 289)

distributing the plurality of node pairs between the first object and the second object; (Fig. 6, elements 286, 288) and

establishing a communication network by linking nodes of node pairs with nodes of other node pairs, wherein the linking comprises RF communication links (zig-zag line between elements 263 and 271 per Fig. 6; col. 5, lines 5-15)

Thus all the limitations of claim 19 are disclosed by the prior-art reference, and claim 19 is accordingly rejected.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 4 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Meier (US 6,407,991).

Regarding claim 1, Meier discloses a multinode arrangement for establishing a communication network for transmitting information between a first object and a second object (data communication network per abstract; first and second objects per Fig. 6, elements 286, 288), comprising:

a plurality of nodes defining a plurality of node pairs; (Fig. 6, elements 286, 271; 263, 267; 273, 288)

wherein the plurality of nodes includes at least a first node (Fig. 6, element 267) and a second node (element 263) defining one of the plurality of node pairs, wherein the

first node and the second node are connected by and communicate through a hardwire connection (element 265 connecting elements 267 and 263); and

wherein the plurality of nodes includes at least a third node (element 271) in another of the plurality of node pairs that communicates with at least the first node or the second node (element 263) through an RF communication link (zig-zag line between elements 263 and 271 per Fig. 6; col. 5, lines 5-15)

Regarding claim 2, Meier further discloses wherein the plurality of nodes establishes a communication network between the first object and the second object (Fig. 6, elements 264 and 286; col. 5, lines 5-15).

Regarding claim 4; Meier further discloses wherein at least one of the nodes (Fig. 6, element 263) of at least one of the node pairs (Fig. 6, elements 267, 263) includes an RF communication link (zig-zag line between elements 263 and 271 per Fig. 6) to communicate with another of the nodes (Fig. 6, element 271) of a second of the node pairs (Fig. 6, elements 271, 286; col. 5, lines 5-15).

Regarding claim 19, Meier further discloses a method for providing a communication network between a first object and a second object (data communication network per abstract; first and second objects per Fig. 6, elements 286, 288), comprising:

providing a plurality of node pairs, wherein each of the node pairs comprises at least two nodes that are connected by and communicate through a hardwire connection; (Fig. 6, elements 286, 271 connected through element 287; 263, 267 through 265; 273, 288 through 289)

distributing the plurality of node pairs between the first object and the second object; (Fig. 6, elements 286, 288) and

establishing a communication network by linking nodes of node pairs with nodes of other node pairs, wherein the linking comprises RF communication links (zig-zag line between elements 263 and 271 per Fig. 6; col. 5, lines 5-15)

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 5, 6 and 14 are rejected under 35 U.S.C. 103(a) as obvious over Meier.

Regarding claim 5, Meier discloses all of the subject matter as recited previously in this office action. Meier further discloses wherein:

each node of a node pair (Fig. 6, elements 267, 263) that is proximate a node of a different node pair includes an RF communication link to communicate with the node of the different node pair (Fig. 6, element 271; col. 5, lines 5-15).

Meier does not disclose wherein the node pairs are distributed in an end to end fashion. It is inherent that the distance between two points, i.e., end-to-end, is the shortest distance along any path. Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to arrange the nodes in an end-to-end fashion to achieve a simple and efficient communication between two objects.

Regarding claim 6, Meier discloses all of the subject matter as recited previously in this office action. Meier further discloses wherein the node pairs are located at least partially in a passage (pathway per col. 2, lines 56-65).

Regarding claim 14, Meier discloses all of the subject matter as recited previously in this office action. Meier further discloses wherein at least one of the nodes comprises a means for receiving information from multiple nodes and transmitting information to multiple nodes (col. 5, lines 5-15).

14. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as obvious over Meier in view of Kirani, et al (US Pub. 2002/0032027).

Regarding claims 7 and 8, Meier discloses wherein the node pairs form a communication network between the first object and the second object (col. 5, lines 5-15) and all of the subject matter as previously recited in this office action except:

wherein the first object is located inside the passage and the second object is located outside the passage, as recited in claim 7;

wherein the first object is a digital camera and the second object is a device that captures digital information, wherein the communication network passes picture information from the digital camera to the device that captures digital information, as recited in claim 8.

Kirani from the same or similar fields of endeavor discloses a digital camera (Fig. 9, element 913; para. 192, line 5) communicating through a wireless network (para. 192, lines 9-10) to a media spooler and a media exchange/vault (Fig. 9, elements 950 and

970), the camera being at the location of data acquisition (para. 18), and the capture device being away from that location (remotely per Fig. 9).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the end devices of Kirani by placing the digital camera and the media units at either end of the communication path and transmitting output from the digital camera to the media units. The motivation for such a combination would have been to implement a monitoring system.

15. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being obvious over Meier in view of Fong, et al (US 7,061,385), and further in view of West (US 5,574,979).

Regarding claims 9-11, Meier discloses all of the subject matter as previously recited in this office action except:

wherein:

each node of a node pair is proximate a node of a different node pair to establish communication with the node of the different node pair by transmitting a hello signal to the node of the different node pair, as recited in claim 9;

wherein:

each node of the node pair is transmits the hello signal at a predetermined frequency and signal strength, as recited in claim 10;

wherein:

each node of the node pair reduces the signal strength of the hello signal after a communication link is established with the node of the different node pair until the communication link is broken; and

each node of the node pair increases the signal strength of the hello a predefined amount after the communication is broken to reestablish the communication link, as recited in claim 11.

Fong from the same or similar fields of endeavor discloses a node is proximate another node to establish communication between the two nodes (distance between two nodes per abstract). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the distance requirement of Fong by ensuring a node of a node pair proximate a node of a different node pair. The motivation for such a combination would have been to ensure communication can be established between the two nodes.

West from the same or similar fields of endeavor discloses:

transmitting a hello signal to communicate status information (col. 25, lines 15-16) at a predetermined frequency (col. 25, lines 17-18) and signal strength (col. 32, lines 25-31)

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier and distance requirement of Fong with the use of hello signal to maintain radio connections by transmitting the hello messages based on RF conditions and parameters. The motivation for such a combination would have been to ensure the link quality.

16. Claims 12-13, 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being obvious over Meier in view of West.

Regarding claims 12-13, Meier discloses all of the subject matter as previously recited in this office action except:

wherein:

each node of the node pair establishes a second communication link with another node of the different node pair if the communication link is broken, as recited in claim 12;

further comprising a means for preventing the second communication link from interfering with another communication link between two of the plurality of nodes, as recited in claim 13.

West from the same or similar fields of endeavor discloses:

reestablishing a connection if the link quality degrades below an acceptable (col. 31, lines 22-24)

continuing to avoid interference (col. 33, lines 33-35).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the use of hello signal to reestablish radio connections and prevent interference by using the hello messages based on RF conditions and parameters. The motivation for such a combination would have been to ensure the link quality.

Claim 22 is a substantial duplicate of claim 12 and is therefore rejected under the same reason set forth in the rejection of claim 12.

Regarding claims 20 and 23, Meier discloses all of the subject matter as previously recited in this office action except:

wherein for each node of a node pair, the step of establishing further comprises:

transmitting a hello to a node of an adjacent node pair; and

establishing a communication link between the node and the adjacent node if a response is received from the adjacent node, as recited in claim 20;

wherein the step of reestablishing further comprises:

transmitting a hello from the node;

receiving the hello with another node of the adjacent node pair; and

establishing the second RF communication link between the node and the other node of the adjacent node pair, as recited in claim 23.

West from the same or similar fields of endeavor discloses:

transmitting a hello signal (col. 25, lines 23-24) to communicate with other nodes (col. 25, lines 27-30; col. 29, lines 61-64).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier with the use of hello signal to establish two radio connections by transmitting the hello messages and setting up RF links to other nodes. The motivation for such a combination would have been to allow communication with other nodes.

17. Claim 21 is rejected under 35 U.S.C. 103(a) as being obvious over Meier in view of West and further in view of Helgeson (US 6,727,816).

Regarding claim 21, the combination of Meier and West substantially discloses all of the subject matter as previously recited in this office action. West further discloses

transmitting the hello at a predefined signal strength (col. 25, lines 15-16; col. 32, lines 25-31). The combination did not explicitly disclose:

reducing the signal strength if the response is received until the communication link is broken; and

increasing the signal strength a predetermined amount to reestablish the communication link.

Helgeson from the same or similar fields of endeavor discloses decreasing and increasing the power level (Fig. 6, elements 554, 556) by a predetermined amount (deadband value per col. 11, lines 14-15) for adequate communication (abstract; col. 10, line 56 to col. 11, line 15). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine the network of Meier and West with power adjustment of Helgeson by varying the power level to maintain communication. The motivation for such a combination would have been to allow communication with other nodes.

18. Claims 15 and 18 are rejected under U.S.C. 103(a) as being unpatentable over Meier, in view of Fong, et al (US 7,061,385).

Regarding claim 15, Meier discloses a multinode arrangement for establishing a communication network for transmitting information between a first object and a second object, comprising:

a communication means for communicating information from the first object (Fig. 6, element 264) to the second object (element 286) across a plurality of nodes that

communicate through RF and hardwire communication links (col. 2, line 66 to col. 3, line 2); and

Meier discloses all of the subject matter as recited previously in this office action except a reestablishing means for reestablishing a communication link between at least two of the plurality of nodes when an original communication link between the two of the plurality of nodes is broken. Fong from the same or similar fields of endeavor discloses reestablishing a wireless communication link between two nodes when the link is broken (abstract; col. 12, lines 10-14). Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention to combine Meier's node arrangement with Fong's link reestablishment by attempting to reestablish the link when it is detected to be broken. The motivation for doing so would have been to ensure connectivity between two nodes.

Claim 18 is a substantial duplicate of claim 14 and is therefore rejected under the same reason set forth in the rejection of claim 14.

19. Claim 17 is rejected under U.S.C. 103(a) as being unpatentable over Meier, in view of Fong, et al and further in view of West.

Claim 17 is a substantial duplicate of claim 13 and is therefore rejected under the same reason set forth in the rejection of claim 13.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see form 892).

21. Examiner's Note: Examiner has cited particular paragraphs, columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and, also to verify and ascertain the metes and bounds of the Claimed invention.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luat Phung whose telephone number is 571-270-3126. The examiner can normally be reached on M-Th 7:30 AM - 5:00 PM, F 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LP

FIRMIN BACKER
SUPERVISORY PATENT EXAMINER